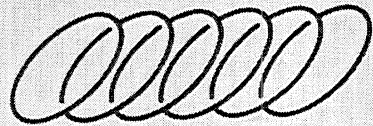


1896

MULTI-CD CONTROL FM/AM
TUNER DECK AMPLIFIER

SUPER TUNER III



OWNER'S MANUAL

Thank you for purchasing this PIONEER product.
Before attempting operation, be sure to read this
manual.



PIONEER[®]
The Art of Entertainment

KEH-M8200


Features

● Electronic Tuner

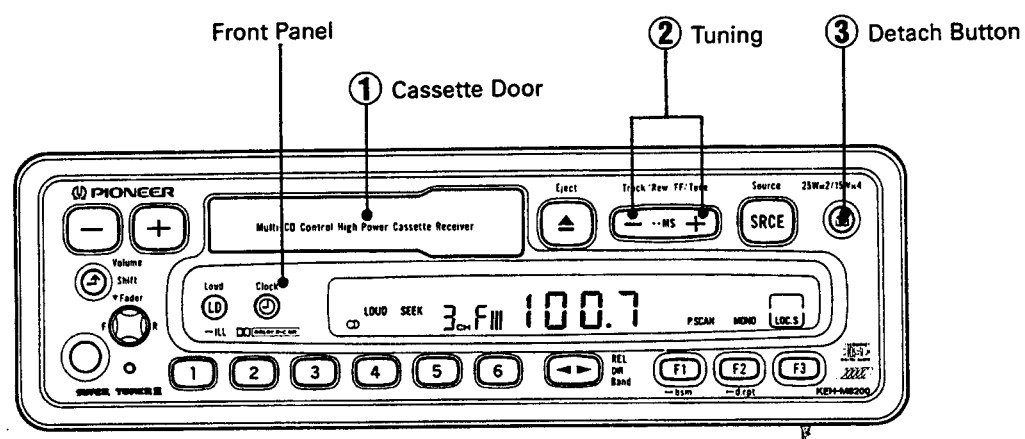
Frequency allocation differs depending upon the area. This unit has been designed in accordance with the frequency allocation for North America. Use in other areas will result in improper reception.

Important

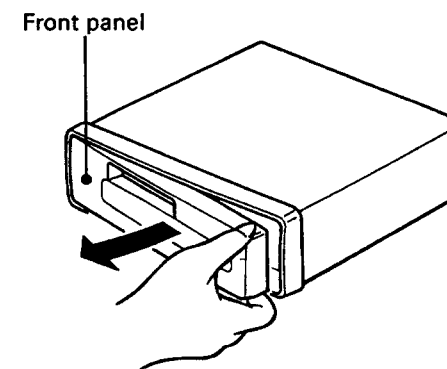
The serial number of this device is located on the bottom of the unit. For your own security and convenience, be sure to record this number on the enclosed warranty card.

- Multi CD Control function for full control over optional magazine type Multi-Play CD Player.
- Built-in highly sensitive "Super Tuner III" for automatic control of stereo separation, muting, and frequency characteristics to match the strength of the FM signal.
- The Best Stations Memory automatically memorizes the six best (strongest) stations in the six preset buttons in the order of their strength.
- Versatile tuning system (preset, preset scan, seek, manual).
- Logic design cassette deck for light-touch easy controls.
- Auto reverse function eliminates the need to turn the cassette over and allows uninterrupted playback.
- Built-in Dolby B-C NR for reduced tape hiss.
- Radio/CD intercept allows uninterrupted reception during tape's Fast Forwarding/Rewinding.
- A selectable dual fader allows you to choose from a 2-speaker system to either 4, 6 and a maximum 8-speaker system.
- Removable front panel protects against theft.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Using the Removable Front Panel



2. To remove the front panel, pull its right-hand side toward you.



The front panel of this unit can be removed as a theft deterrent.

Buzzer warning for front panel removal

If the front panel is not removed within 5 seconds after the ignition is turned off, a buzzer will go on for a few seconds to remind you to take off the front panel before leaving the car.

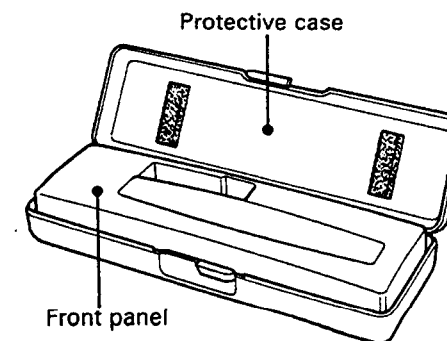
To disable the warning function, follow the procedure below:

1. Turn the ignition switch off.
 2. While pressing the (—) side of tuning Button (2), turn on ignition switch. The warning function will be disabled.
- To reactivate the warning function, repeat steps 1 and 2.

Detaching the Front Panel

1. Press Button (3) and the right-hand side of the panel will eject.

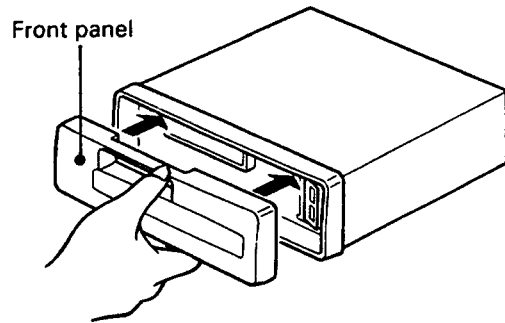
- Take care not to put pressure on the display or drop the front panel.
 - If the front panel is removed while a cassette is loaded in Cassette Door (1), the cassette will automatically eject after a few seconds.
3. Enclose for safekeeping the front panel that is removed in the supplied protective case.



Replacing the Front Panel

Push the front panel into the main body.

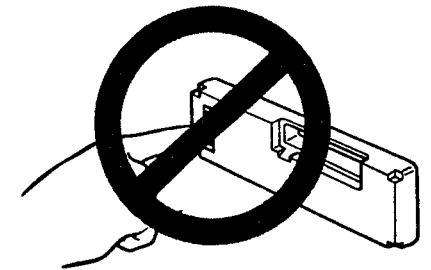
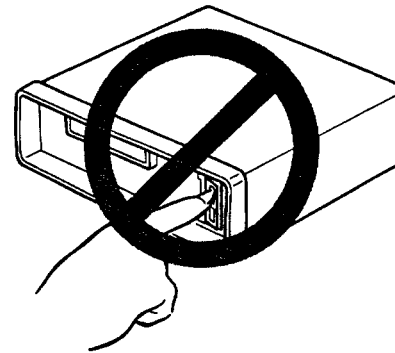
- When replacing the front panel, do not put pressure on the display or control buttons.



- Note that if the front panel is not attached correctly, pushing Button ③ may not release the panel, and the other control buttons may not function.

Precautions

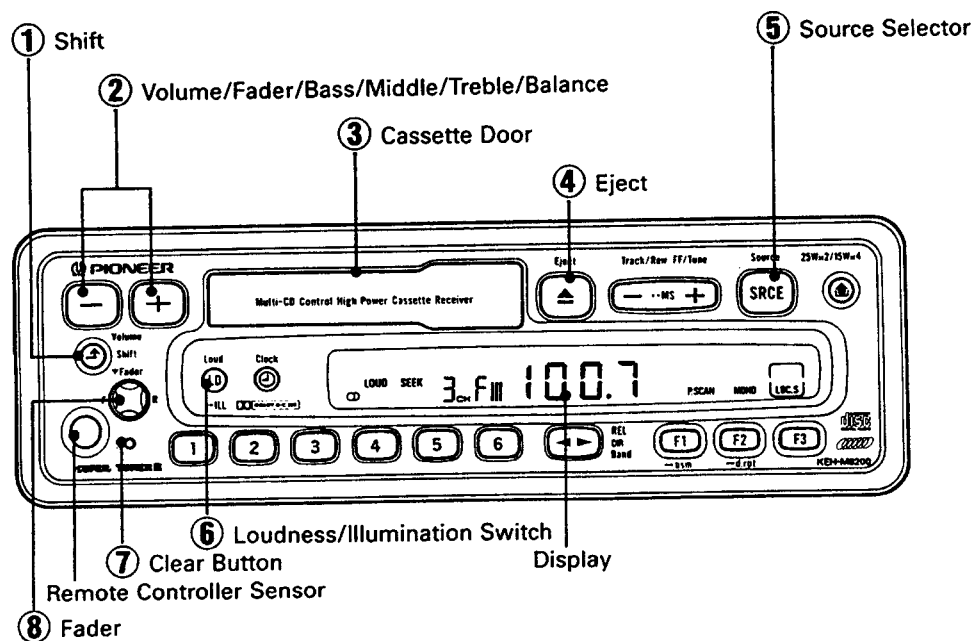
- Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.



Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzine, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

Switching Power On/Adjusting Volume and Tone



Using the Clear Button

Once all wiring is complete, press Button ⑦ with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of buttons and controls, or an abnormal display. Should this happen, press Button ⑦ with a thin, pointed object to reset the microprocessor. Note that doing so also resets all audio controls, so you will have to make any desired settings again. This operation deletes all memory contents, such as frequencies stored in the preset memory, so you will have to make any desired settings again.

Switching Power On

Radio

Press Button ⑤ to switch the tuner power on. Press Button ⑤ again to switch the power off.

Tape

Insert the cassette tape through the Cassette Door ③, and the power will be automatically turned on to get the tape start being played back. To eject the tape, press the Button ④.

- You will hear a few consecutive clicks from your unit when you have started the engine with the cassette tape inserted. The sounds are only the sign of your unit's mechanical preparation being made, but does not indicate at all its functional failure.

Changing the Source

When the cassette tape is inserted, the source changes at each press of the Button ⑤: Tape → Radio → OFF. When a Multi-Play CD Player—optionally available Multi-Play CD Player CDX-M40, for example—is connected to your unit, the source changes: Multi-Play CD Player → Tape → Radio → OFF.

Adjusting Volume/Fader/Bass/Middle/Treble/Balance

To adjust volume, press the Button ②. The display changes at each press of the Button ①: Volume → Fader → Bass → Middle → Treble → Balance. Press the Button ② to adjust the displayed mode.

Adjusting Volume

Pressing the (+) side of Button ② increases the volume, while the (−) side decreases it.



Adjusting the Fader

This fader controls the balance between speakers [1], [2], and [3], and speakers [4], which are shown in Figure 1 on page 7. Press the (–) side of Button ② to raise the volume of speakers [1], [2] and [3] only; press the (+) side to raise the volume of speakers [4] only.

- The unit has two faders: the electronic preamp fader and the power fader controlled by Fader Control Knob ⑧. The use of both faders depend on the way the speakers are connected. For details, see “Using the Fader” on page 7.

A rectangular digital display with rounded corners showing the text "FAD. 0" in a seven-segment font.

Adjusting Bass

Pressing the (+) side of Button ② increases bass, while the (–) side decreases bass.

A rectangular digital display with rounded corners showing the text "BAS. 0" in a seven-segment font.

Adjusting Middle

Pressing the (+) side of Button ② increases middle, while the (–) side decreases middle.

A rectangular digital display with rounded corners showing the text "MID. 0" in a seven-segment font.

Adjusting Treble

Pressing the (+) side of Button ② increases treble, while the (–) side decreases treble.

A rectangular digital display with rounded corners showing the text "TRE. 0" in a seven-segment font.

Adjusting Balance

Pressing the (–) side of Button ② shifts the balance to the left speaker, while the (+) side shifts it to the right speaker.

A rectangular digital display with rounded corners showing the text "BAL. 0" in a seven-segment font.

- When you're adjusting fader, bass, middle, treble, or balance settings, the indicator will stop at the center setting. About 5 seconds after adjustment has been made, the display returns to its previous state.

Using the Fader

The unit is provided with two faders: the electronic preamp fader controlled by Buttons ① and ②, and the power fader controlled by Fader Control Knob ⑧.

Electronic preamp fader ①, ② controls the balance between speakers ①, ② and ③, and speakers ④, as shown in Figure 1. (See "Adjusting the Fader" on page 6.)

Power fader ⑧ controls the balance between speakers ② and speakers ③, as shown in Figure 1.

Pressing Knob ⑧ inward, turn it to the right to raise the volume of speakers ③ only, or turn it to the left to raise the volume of speakers ② only.

- The use of both faders depend on the way the speakers are connected. For details, refer to the next section, "Speaker Connections and the Use of Both Faders."

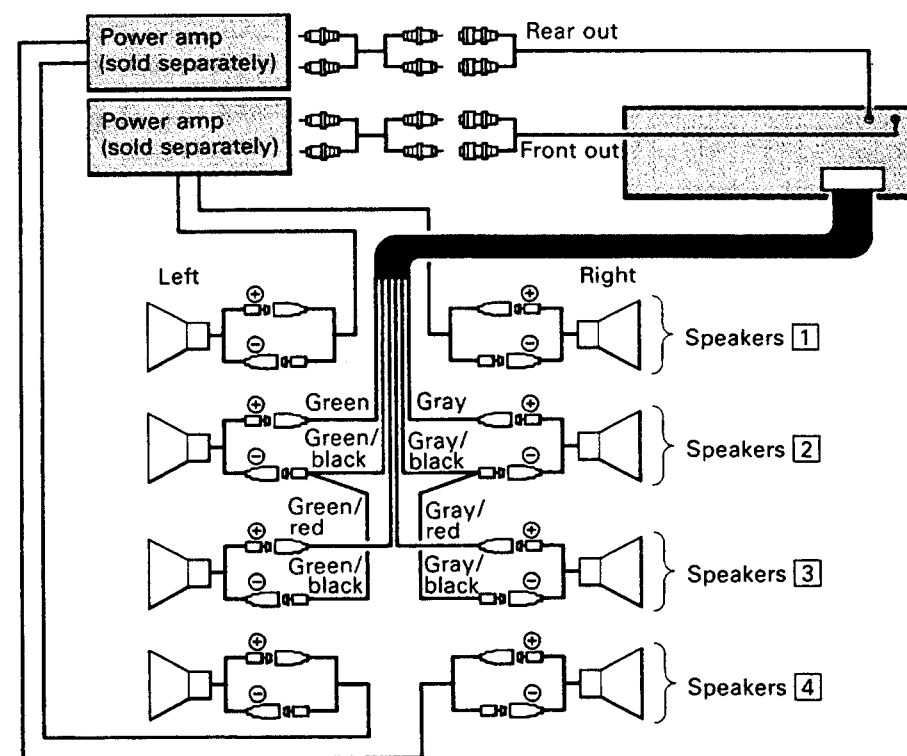
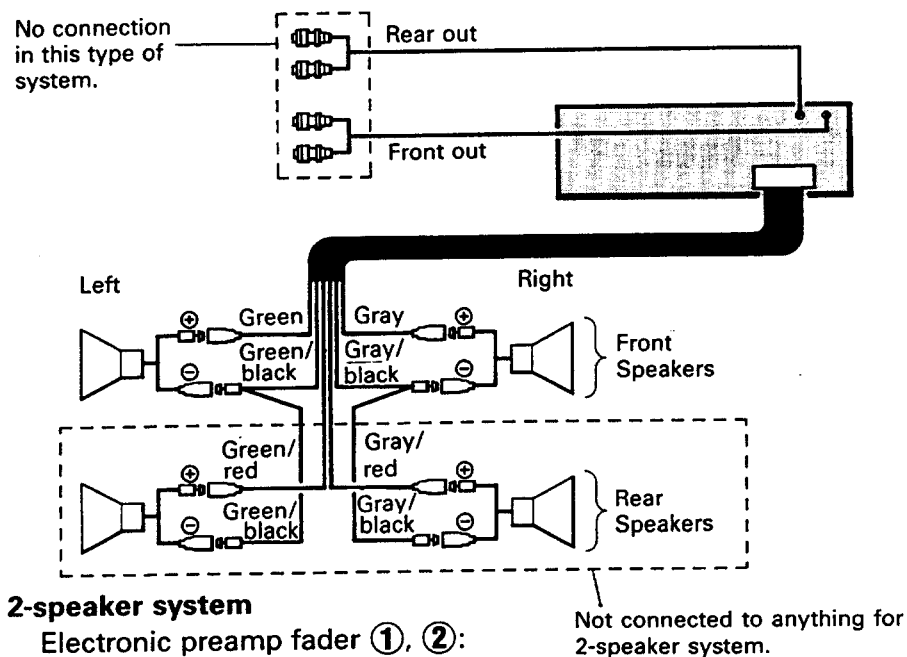


Fig. 1

Speaker Connections and the Use of Both Faders

Example 1: 2/4-speaker system (1)



2-speaker system

Electronic preamp fader ①, ②:

Set to FAD. 0.

Power fader ⑧:

Set to the center position. (A click is felt when the knob reaches the center position.)

4-speaker system (1)

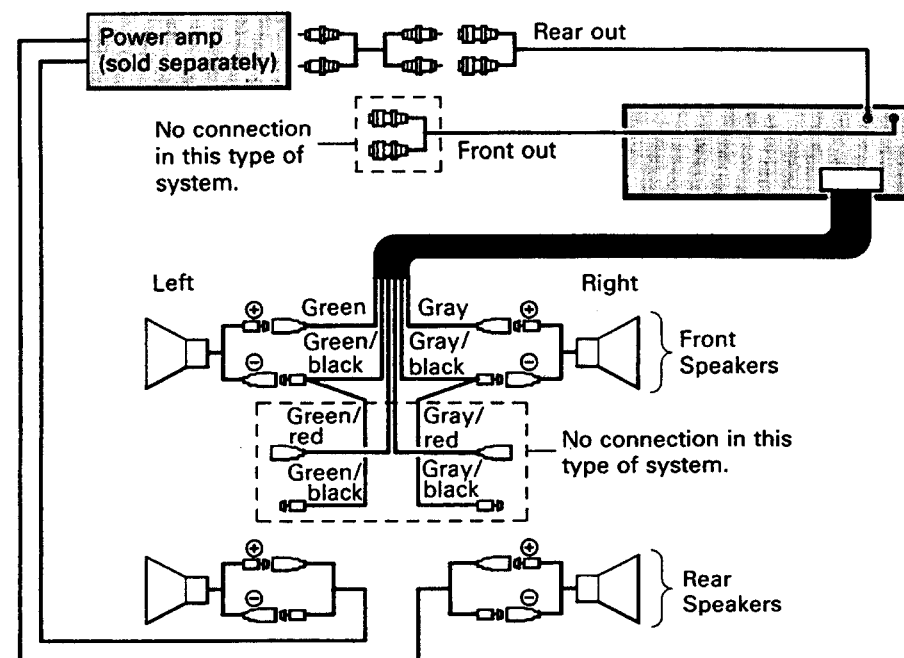
Electronic preamp fader ①, ②:

Set to FAD. 0.

Power fader ⑧:

Controls the balance between the front and rear speakers.

Example 2: 4-speaker system (2)



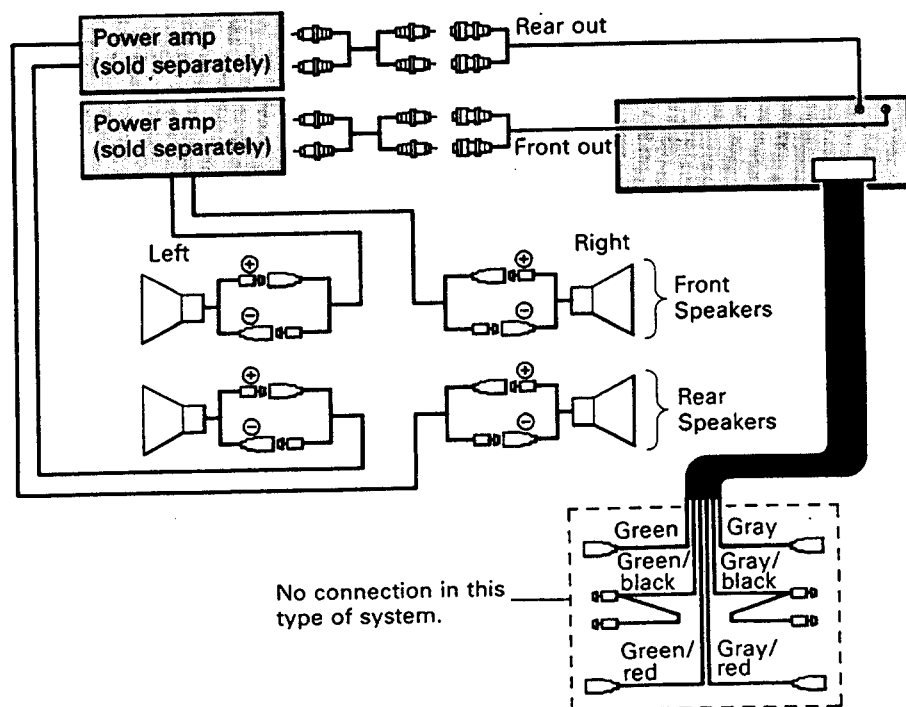
Electronic preamp fader ①, ②:

Controls the balance between the front and rear speakers.

Power fader ⑧:

Set to the center position. (A click is felt when the knob reaches the center position.)

Example 3: 4-speaker system (3)



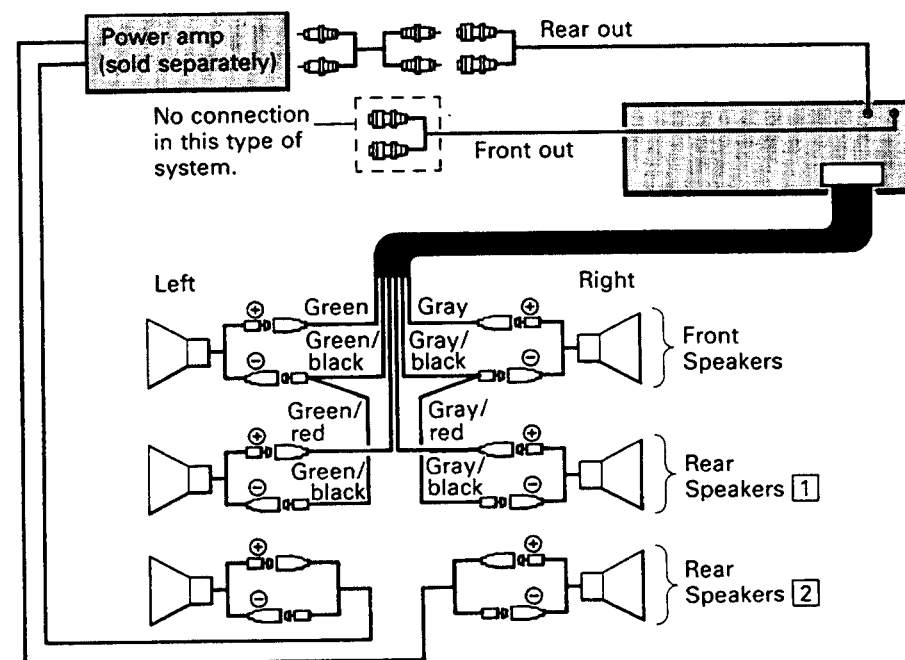
Electronic preamp fader ①, ②:

Controls the balance between the front and rear speakers.

Power fader ⑧:

Turning this fader does not change the balance.

Example 4: 6-speaker system (1)



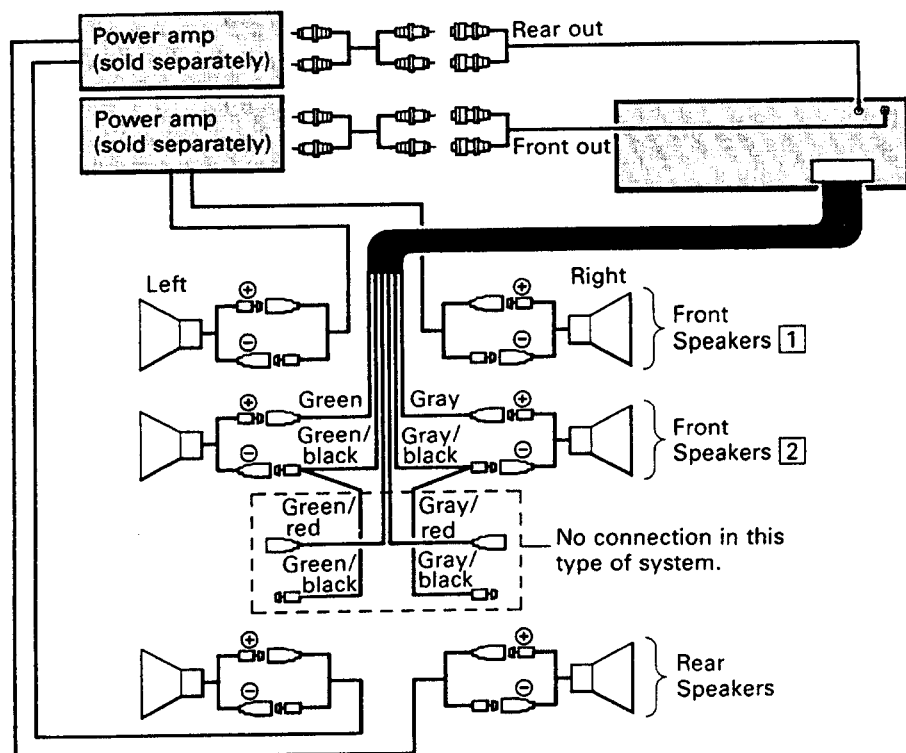
Electronic preamp fader ①, ②:

Controls the balance between the front and rear speakers ① and rear speakers ②.

Power fader ⑧:

Controls the balance between front and rear speakers ①.

Example 5: 6-speaker system (2)



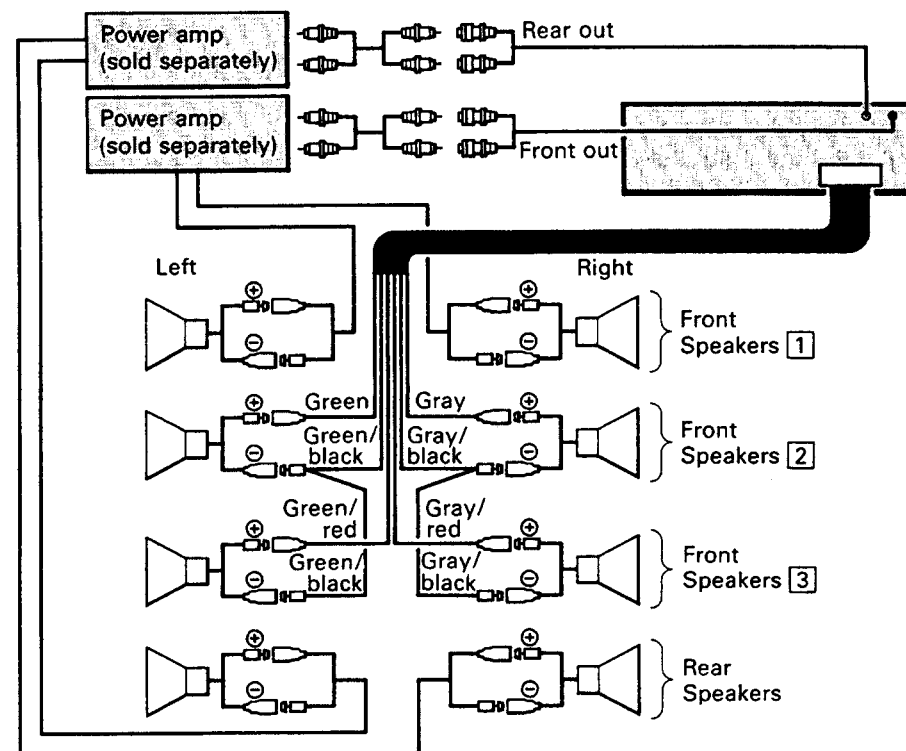
Electronic preamp fader ①, ②:

Controls the balance between front speakers ① and ②, and rear speakers.

Power fader ⑧:

Set to the center position. (A click is felt when the knob reaches the center position.)

Example 6: 8-speaker system



Electronic preamp fader ①, ②:

Controls the balance between front speakers ①, ② and ③, and the rear speakers.

Power fader ⑧:

Controls the balance between front speakers ② and front speakers ③.

Using the Loudness Function

Press Button ⑥ and the "LOUD" indicator will appear on the display. This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volumes.

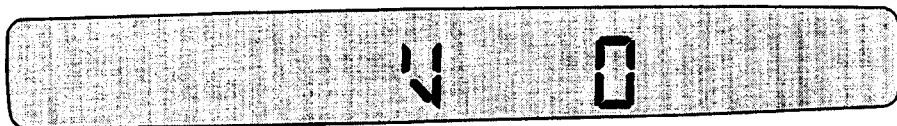
Switching Illumination Colour

You can select either green or amber for the switch illumination color. To switch the color, hold down Button ⑥ for two seconds. Pressing Clear Button ⑦ causes the illumination to be turned green.

Using Source Level Adjustor

You may wish to adjust volume when you have changed the source to radio, tape, or CD or when you have changed the radio band from FM to AM. You can do so on the basis of the volume of FM as follows:

1. Use the Button ⑤ to change the source. (In case of radio, change the band to AM.)
2. Hold down the Button ① for about 2 seconds, and the display will show you the volume of the source.



3. To increase the volume, press the (+) side of the Button ②, and the decrease press the (−) side. You can adjust the volume within a span of $V - 4$ and $V + 4$. The display automatically returns to the previous showing when five seconds have elapsed after the adjustment.

- No adjustment can be made when an FM station is tuned in.

Regarding the Cellular Telephone Muting

When the audio mute terminal of a separately sold PIONEER cellular telephone is connected to the cellular mute terminal of the unit, the following function becomes active.

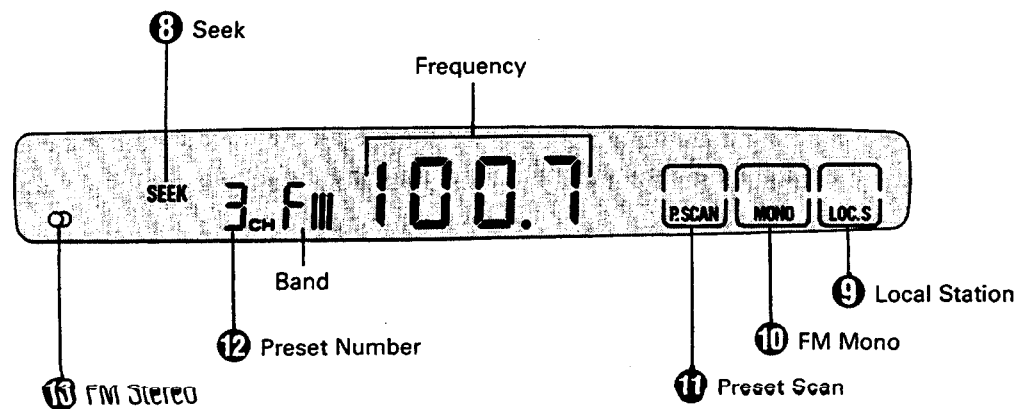
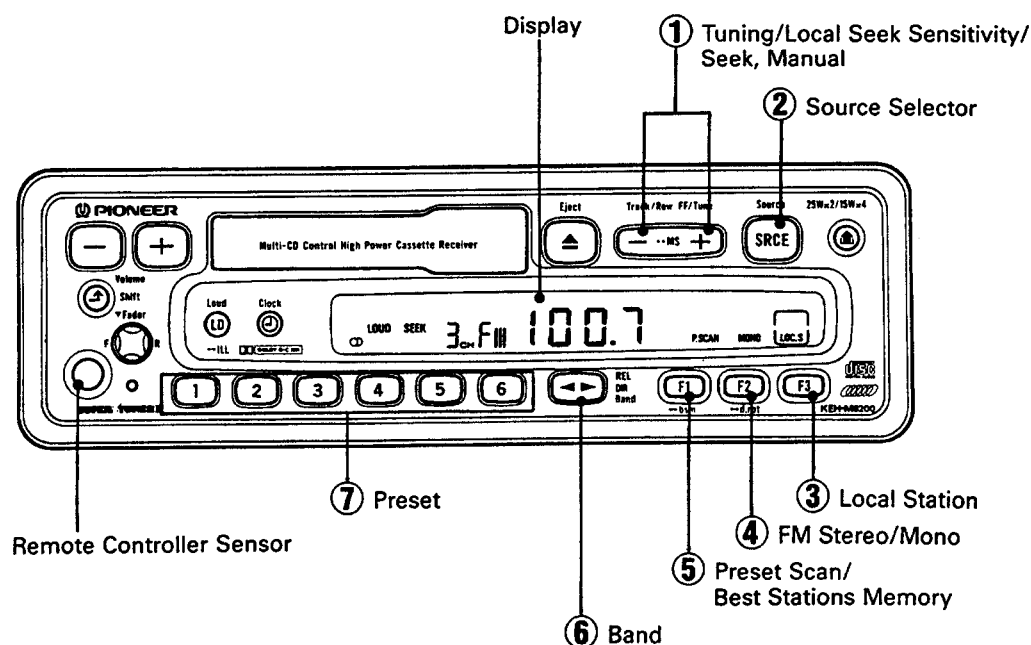
When a phone call is received or made on the cellular telephone, the volume is automatically lowered by the unit, and PHONE is shown on the display.



When a call is ended, the volume returns to the previous level and the previous display is shown again.

- When the volume is lowered by the operation of the cellular telephone muting function ("PHONE" is shown on the display), the unit's shift Button ① and the attenuator button of the remote controller unit are disabled.

Using the Radio



1 Press Button ② to switch the radio power on.

2 Press Button ⑥ to select a band.

$F_I \rightarrow F_{II} \rightarrow F_{III} \rightarrow R_I$
(FM1) (FM2) (FM3) (AM)

3 Use seek tuning to tune in a frequency.

Confirm that the "SEEK" indicator ⑧ is shown on the display (if not, press the (+) and (−) sides of Button ① at the same time). Press the (+) side of Button ① to automatically tune in the next higher receivable frequency, and the (−) side for a lower frequency.

4 Adjust volume and tone (see page 5).

5 Assign the tuned frequency to one of the buttons in Bank ⑦ (preset memory).

Press and hold down one of the buttons in Bank ⑦ for at least two seconds. The frequency is assigned to the selected button when the Preset Number ⑫ stops flashing on the display. Up to 18 FM stations (6 each for FM1, FM2 and FM3), and six AM stations can be assigned to the preset memory buttons in Bank ⑦.

6 Once a frequency is assigned to a button in Bank ⑦, you just need to press that button to tune it in.

This also causes the number of the button pressed to appear at Position ⑫ on the display.

Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.

1. Pressing Button ⑤ turns on the frame of Preset Scan ⑪ and flashes Preset Number ⑫.

Each station assigned to the buttons in Bank ⑦ will be automatically tuned in for about eight seconds.

2. When you hear a station that you like, press Button ⑤ again to cancel preset scan tuning and remain at that station.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank ⑦, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press Button ⑥ and select a band.
2. Hold down Button ⑤. After about two seconds, a "beep" will sound to signal that the BSM search has started. At this time, "BSM" will flash on the display.



BSM





3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank ⑦.
- At the end of the BSM search, the displayed frequency is that assigned to Button ① of Bank ⑦.
 - If there are fewer than six strong stations in the area, some of the buttons in Bank ⑦ will not be assigned frequencies, so they will retain any frequencies assigned to them previously.
 - BSM search may take as long as 30 seconds in areas where there are few strong stations.
 - You can cancel BSM search by pressing Button ⑥.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (−) sides of Button ① at the same time to clear "SEEK" ⑧.
2. Each press of the (+) side of Button ① increases the frequency in 0.2 MHz steps in the FM band, 10 kHz in the AM band. Pressing the (−) side of Button ① decreases the frequency. Holding down either side of Button ① changes the frequency at high speed.



Switching between FM stereo and Mono

Generally, it is best to allow the "Super Tuner III" function to automatically set the optimum listening conditions.   turns on during stereo broadcast is in reception. When there is a large amount of noise, you can press Button  for clearer mono reception (The frame of FM Mono  turns on).

Adjusting Seek Sensitivity


The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and two levels for AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use Button  to select a band.
2. Hold down the Button  for more than two seconds, and the display will show you the current local seek sensitivity for about five seconds.



(Example: LOC-2)

3. While the local seek sensitivity remains on the display, press the (+) side of Button  to increase the sensitivity level, and the (-) side to decrease the level as shown below.



FM: LOC-1 \rightleftharpoons LOC-2 \rightleftharpoons LOC-3 \rightleftharpoons LOC-4

AM: LOC-1 \rightleftharpoons LOC-2

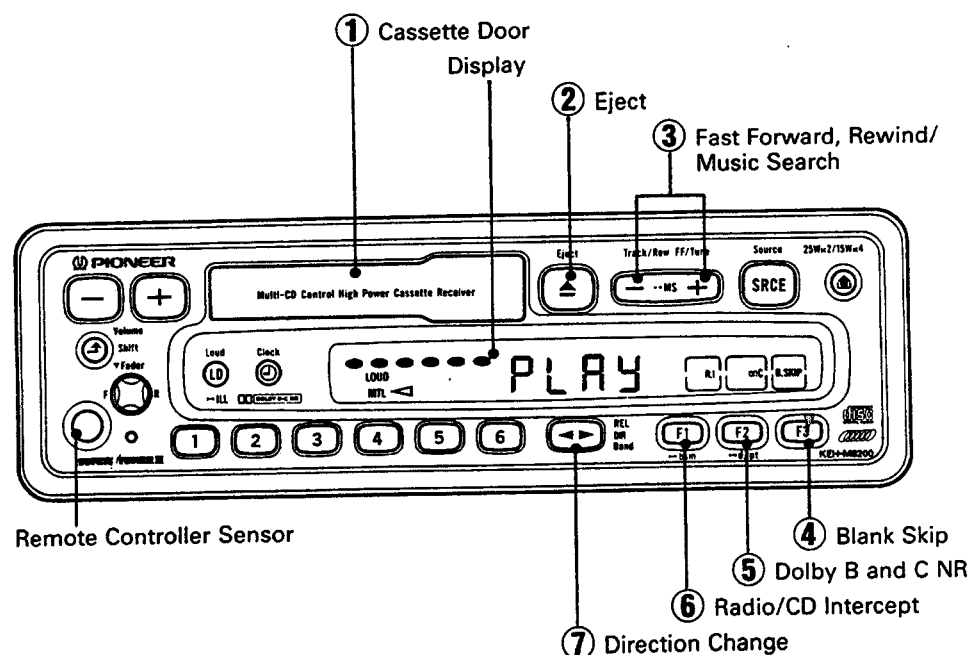
The LOC-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

- The display of local seek sensitivity returns to the frequency when about five seconds have elapsed after the change of sensitivity.

Switching between Local and DX

Press Button  to switch between Local and DX (distant) seek tuning. When the frame of Local Seek  is lit, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Using the Tape Deck



1 Insert the cassette tape into the Slot ①, and power will be turned on and the tape begin being played back. At this time, the Tape Transport Indicator ⑧ and the Direction Indicator ⑫ will light up.

2 Adjust volume and tone (see page 5).

3 To eject the cassette tape, press the Button ②.

- Power is automatically turned off when the cassette tape has not been set within a few seconds. When this happens, remove the tape by pressing the Button ② because of a possible trouble with the tape.
- A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.

Changing Program

Press the Button ⑦ to change the side of tape from A to B or vice versa.

Using Fast Forward and Rewind

1. To forward tape fast, press the (+) side of the Button ③.



To rewind tape, press the (−) side.



-
2. To release the Fast Forward or Rewind function, press the Button ⑦.

Using Music Search

1. To repeat the current selection (A), press the (–) side of the Button ③ two consecutive times.

R - MS

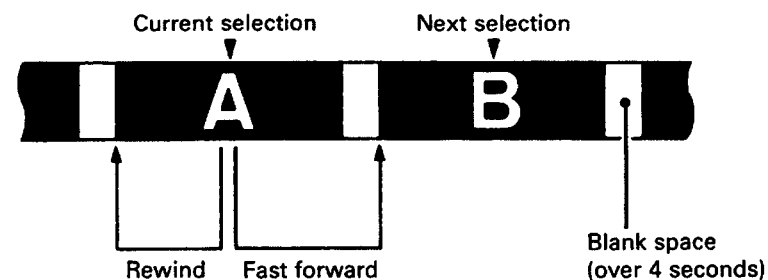
To hear the following piece of music (B) rather than continue the current selection, press the (+) side of the Button ③ two consecutive times. Pressing the Button ③ three consecutive times makes the normal sequence of playing resume.

F - MS

2. To release the Music Search function, press the Button ⑦.

The following errors will cause the music search function to operate improperly, even though the unit is not malfunctioning.

- Unrecorded "blank" portions between selections less than 4 seconds → the blank portion cannot be detected by the unit.
- Pauses in recorded conversations longer than 4 seconds → the unit reads these as blanks between selections.
- Portions recorded at very low volume for more than 4 seconds → the unit reads these as blanks between selections.



Dolby B and C NR

Press Button ⑤ to listen to a cassette recorded using the Dolby NR system. Each press of Button ⑤ shifts the Dolby NR mode as follows:

Dolby B NR (□□ and the frame at Dolby B and C NR ⑩ turn on) → Dolby C NR (□□ C and the frame at ⑩ turn on) → Dolby NR off (the frame at ⑩ turns off)

Auto Tape Selector

When a cassette tape is inserted, the automatic tape selector determines the tape type, and switches between 70 μ s and 120 μ s equalization. When it is a metal or chrome tape, "MTL" ⑬ comes on. When it is a normal tape, nothing comes on.

Blank Skip

Pressing Blank Skip Button ④ turns on the frame at Blank Skip ⑨ and causes the unit to automatically fast forward to the next recorded position when a blank of about 10 seconds is detected on the tape.

Using the Radio Intercept

(When the optional Multi-Play CD Player is not connected)

Use the Radio Intercept function to hear radio while fast forwarding or rewinding.

1. Press Button ⑥ ("R.I" and the frame at Radio/CD Intercept ⑪ turn on.) before fast forwarding or rewinding to hear the radio.
2. To cancel the Radio Intercept function, press Button ⑥ again.
 - The Radio Intercept function does not function when the Music Search or Blank Skip function is in operation.

Using Radio/CD Intercept

(When the optional Multi-Play CD Player is connected)

Connecting the optional Multi-Play CD Player adds a CD Intercept function along with the Radio Intercept function.

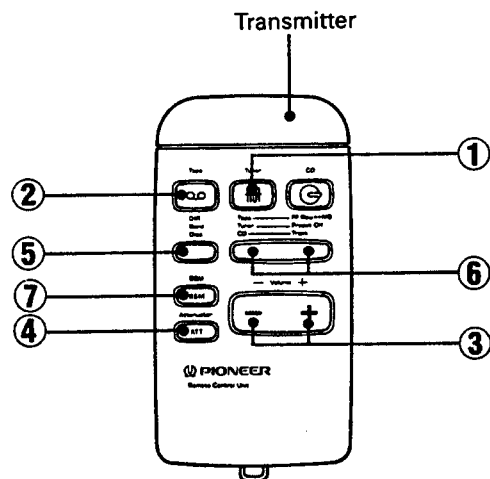
Each press of Button ⑥ causes the mode to change as follows:

Radio Intercept ("R.I" and the frame at Radio/CD Intercept ⑪ turn on) → CD Intercept ("CD.I" and the frame at ⑪ turn on) → Normal (the frame at ⑪ turns off)

When the Radio Intercept mode is on, the radio will be audible during fast forwarding or rewinding. When the CD Intercept mode is on, disk play will be audible during fast forwarding or rewinding.

- Radio/CD Intercept does not function when the Music Search or Blank Skip function is in operation.

Using Remote Control



① Tuner

Changes to Radio.

② Tape

Changes to Tape.

③ Volume

Press the (+) side to increase volume and the (−) side to decrease volume.

④ Attenuator

Press to reduce the volume to 1/10 of its current setting ("ATT" flashes).

Pressing again returns the volume to its original level.

- This function is available using the remote controller unit only.



Operating Radio

⑤ Band

Band changes.

⑥ Preset Channel

Press to tune the frequencies assigned to the preset button memory. Pressing the (+) side tunes in the next high preset button number, while (−) tunes in the next lower preset button number. The preset number changes at high speed when you hold either side of this button down.

⑦ Best Stations Memory

Hold on this button for about two seconds, and you will hear a beep and see Best Stations Memory start.

Operating Tape

⑤ Program

Press this button to change the side of tape from A to B or vice versa.

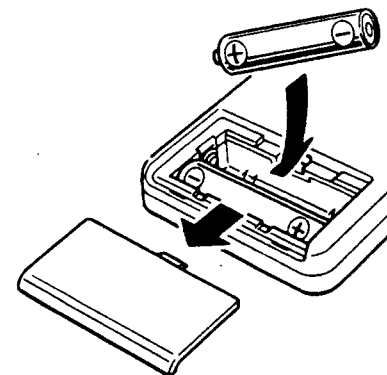
⑥ Fast Forward/Rewind

Press the (+) side for fast forward and the (–) to rewind the tape. Press this button twice to perform the music search operation, and a third time to return to normal playback.

Preparing to Use the Remote Controller Unit

Loading Batteries

1. Remove the battery compartment cover from the remote controller unit.
2. Load two batteries, whose type is UM-4, AAA, or R03, as applicable, that come with the unit into the remote controller unit, ensuring that their polarity (+/–) is correct.
3. Replace the battery compartment cover.



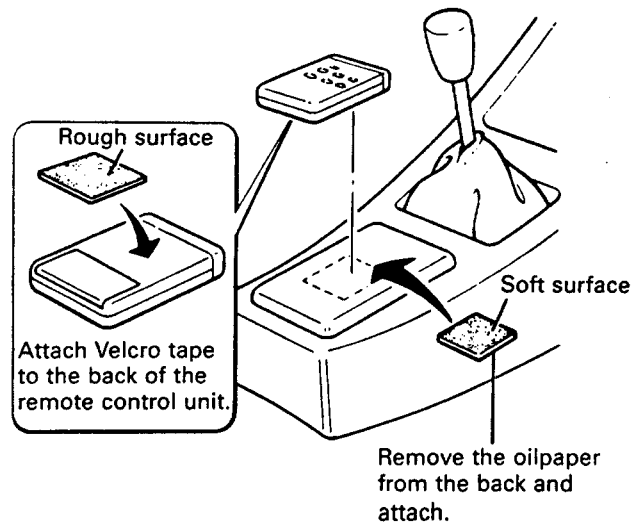
Precautions When Loading Batteries

Note the following precautions when loading batteries into the remote controller unit to avoid damage due to battery fluid leakage.

- Always check carefully that you are loading batteries with their ⊕ and ⊖ poles facing in the proper directions.
- Never mix old and new batteries. Always replace batteries with two new ones.

- Some batteries may appear to be identical but have different voltage ratings. Never mix battery types.
- Some batteries can be recharged and some cannot. Be sure to carefully read the label for the batteries you use.
- To avoid damage to the remote controller caused by battery leakage, remove the batteries from the remote controller if you do not plan to use it for more than one month. If you find that fluid has leaked, thoroughly wipe out the battery compartment and load a set of new batteries.

Installing the Remote Controller Unit



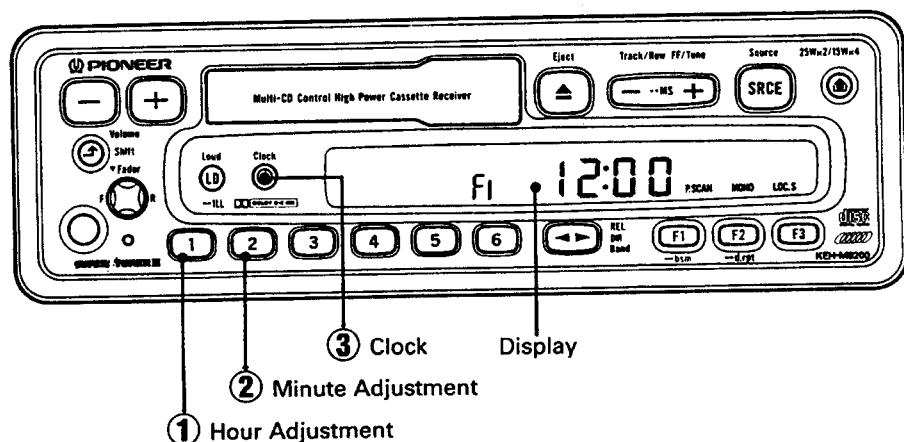
Affix a strip of Velcro tape to the back of the remote control unit.
Remove the oil paper on the back and affix into place.

- Thoroughly wipe off the surface before affixing the Velcro tape.

Precautions

- Keep the remote controller unit in an area not exposed to long periods of direct sunlight.
- The remote controller unit may not operate properly if the transmitter of the remote controller unit is pointed towards the floor or the seat of the vehicle.
- Since the transmitter employs an infrared system, it may not operate properly while car stereo unit is exposed to direct sunlight. In such a case, block the sunlight from the sensor and then perform the desired operation.
- If the remote controller fails to operate unless it is brought close to the unit, it may indicate that battery power is low. Replace the batteries in the remote controller.

Using the Clock Display



Displaying the Time

The clock is displayed while Button ③ is depressed. Press Button ③ again to turn off the clock display.

- When the clock display is ON, pressing other buttons will release the clock display. The display will be restored approximately 25 seconds after the button operation has been completed.

Adjusting the Time

Adjusting the Hours

While holding down Button ③, press Button ① to adjust the hour setting of the clock. Each press of Button ① advances the hour setting by one hour, and holding it down advances the setting at high speed.

Adjusting the Minutes

While holding down Button ③, press Button ② to adjust the minute setting of the clock. Each press of Button ② advances the minute setting by one minute, and holding it down advances the setting at high speed.

- After the minute adjustment has been completed, releasing the Button ③ will start the second beginning with zero. (The seconds won't be displayed.) Adjust the second by checking them against a time signal. When only the hours are being adjusted, the seconds will not start at zero.

Precautions When Using the Multi-Play CD Control

- This model can be used as controller when an optionally available multi-play CD player (e.g., CDX-M40) is included in the system. Programmed play does not operate when used with the multi-CD player CDX-M70 or CDX-M100.
- See pages 23 through 28 for details on operation procedures.
- The Owner's Manual for the Multi-Play CD Player does not contain an explanation of the CD controls for this unit. Read this Owner's Manual for details on proper operation and keep it handy for later reference.
- Immediately after the Multi-Play CD Player is connected to the system, it may not operate properly (i.e. the system will not enter the Multi-Play CD Player mode when you press the Source Selector Button). In this case, press the Clear Button of the main unit and the Clear Button of the Multi-Play CD Player, and attempt operation again.
- An *E r r* (error) indicator is shown on the display and operation of the system becomes impossible when there are no discs in the magazine or when the discs are loaded into the magazine with their labels facing upwards. Whenever this message appears, remove the disc magazine and check the discs.
- The indicator *H H H H* flashes on the display and playback is automatically cut when the temperature around the Multi-Play CD Player becomes too high. This protects the laser mechanism from serious damage. Listen to the radio until the temperature returns to normal.
(This functions only when your unit is used with a Multi-Play CD Player CDX-M100.)


The Magazine Type Multi-Play CD Players with  mark and the Magazines with the same mark are compatible for 5-inch (12 cm) discs.

Diagram of a Pioneer Multi-CD Control High Power Cassette Recorder. The unit features a digital display showing '6-05'. Numbered callouts identify the following features:

- 1 Track Number Search/ Fast Forward, Reverse
- 2 Source Selector
- 3 ITP (Instant Track Program)
- 4 Disc Repeat/ Music Repeat/ Random Play
- 5 Track Scan
- 6 Program Clear
- 7 Disc Number Search
- 8 Disc
- 9 Track Scan
- 10 Disc Repeat/ Music Repeat/ Random Play
- 11 ITP (Instant Track Program)
- 12 Track Number
- 13 Disc Number

- If you stopped operating a Multi-Play CD Player CDX-M100 in the middle of music and then restarted, the player resumes playing from the very beginning of the selection with which you stopped.

Note:

- After you press a button in Bank ⑦, it may take some time before play begins due to the time necessary to load and set the disc in the mechanism.
- The display counts down the number of seconds between tracks if the spacing is rather large (—02, —01).

Using Highlight Scan

Highlight Scan is designed to enable you to conveniently scan all pieces of music contained in the disc by playing 10 seconds each at your designated point of time after the start of the music. The starting time of play is set at one minute in factory. Therefore, the Highlight Scan begins one minute after the start unless you designate it otherwise. (This function does not operate when used with the CDX-M70 or CDX-M100.)

When you do not want to change the factory-set time:

1. Pressing Button ⑤ turns on the frame of Track Scan ⑨.
 2. The contained pieces of music will be played in sequence for 10 seconds each one minute after the beginning.
 3. Press Button ⑤ again when your selected piece comes, and it will continue to play. At this point, the Highlight Scan discontinues to operate.
- The previous function automatically resumes when a piece of music with which Highlight Scan began returns.

Changing the Starting Time of Highlight Scan

When you want to set the starting time of the Highlight Scan to 30 seconds:

1. Press Button ①, (+) and (–) sides simultaneously, and time numerals will be displayed.
2. Keep pressing either (+) or (–) side of Button ① until the numerals reaches 30.



3. Pressing button ⑤ for 2 or more seconds, turns on the frame of Track Scan ⑨.
Highlight Scan will begin 30 seconds after the start of the next piece of music.
- The starting time of Highlight Scan can be designated at ten or tens of seconds only. A tenth or tenths of seconds can be disregarded.
 - If a piece of music ends before your designated point of time at which Highlight Scan starts, the scanning is performed for its beginning 10 seconds.
 - If a piece of music lasts less than 10 seconds, so does the Highlight Scan.
 - You may wish to change the starting time longer without suspending the function. You may do so, however, only to a relatively long-playing piece of music because, as a matter of course, the time cannot be set so as to come after the end of the music.

Using Track Scan

This function lets you scan through the tracks on a disc by playing only the first ten seconds of each track. (This function operates only when used with the CDX-M70 or CDX-M100.)

1. Pressing Button ⑤ turns on the frame of Track Scan ⑨.
 2. To cancel track scan and continue play at the current track, press Button ⑤ again.
- After track scan plays through all of the tracks, disc play resumes from the beginning of the track from which track scan was started.

Using Disc Repeat, Music Repeat and Random Play

Each press of Button ④ causes the mode to change as follows:

Music Repeat ("RPT" and the frame at ⑩ turn on) → Random Play ("RDM" and the frame at ⑩ turn on) → Normal (the frame at ⑩ turns off)

If Button ④ is pressed for 2 or more seconds, the mode changes to Disc Repeat ("D.RPT" and the frame at ⑩ turn on).

Music Repeat

1. To repeat the music you are listening to, select the repeat mode ("RPT" and the frame at ⑩ turn on).
 2. To cancel Music Repeat, press Button ④ to turn off frame ⑩.
- When Disc Repeat or Music Repeat are not operational, the compact discs contained in the magazine will play sequentially from beginning to end, and then start from disc 1 again.

Random Play

1. To play music randomly, select the random play mode ("RDM" and the frame at ⑩ turn on). Once the current track has been played, the microprocessor will randomly select the next and subsequent tracks.
 2. To cancel Random Play, press Button ④, turning off frame ⑩.
- Since selections are played in random order, the same selection may be played twice in succession.
 - When a Multi-Play CD Player CDX-M100 is used, random selection is made from a disc being played.

Disc Repeat

The Disc Repeat function causes the same disc to play repeatedly.

1. Press Button ④ for 2 seconds or more while the desired disc is being played. The mode will change to Disc Repeat mode ("D.RPT" and the frame at ⑩ turn on).
 2. To cancel Disc Repeat, again, press Button ④ for 2 seconds or more and turn off the frame at ⑩.
- Even during Disc Repeat, the mode will change each time Button ④ is pressed, in the following order: Music Repeat → Random Play → Normal.
 - When Disc Repeat or Music Repeat are not operational, the compact discs contained in the magazine will play sequentially from beginning to end, and then start from disc 1 again.

Using Program Play

Using Fast Forward and Reverse

1. Press simultaneously both (+) and (−) sides of the Button ①. At this time the display will show the amount of elapsed disc play time.



2. Press the (+) side of Button ① for fast forward, and the (−) side for reverse.
 - Sound is output during fast forward and reverse operations.

This function lets you program the play sequence of all of the tracks contained on the compact discs loaded in the magazine.

- The ITP function will not operate when connected to either the CDX-M70 or CDX-M100.
- Up to 32 selections can be programmed for a single magazine.
- Up to 16 different magazines (max. 32 selections per magazine) can be programmed individually. If you program more than 16 magazines, old programs are automatically replaced by new ones.
- Automatic Magazine Program Selection (AMPS) retrieves the right program from the memory automatically, as soon as a pre-programmed magazine is loaded. Preprogrammed magazines are identified using the CD in the tray 1 of the magazine. Therefore be sure that tray 1 contains a disc.

Programming

1. While a disc is playing, select the desired disc and track you want to program. (See page 23)
2. Press the ITP Button ③ to memorize the track being played.



Displays the number of the step being added to the memory.

3. Procedures 1 and 2 above can be repeated until a maximum of 32 steps are programmed.



- If the 33rd step is selected, the "FULL" display will appear, indicating that no more selections can be programmed.



- When there are already a number of selections in the memory, the new selection will be added to the last step.

Playing back the program

1. Hold down the ITP Button ③ for 2 seconds to begin play in the programmed sequence, while a disc is playing. (The ITP frame ① will light.)



Displays the step number being played.

2. Press the ITP Button ③ again to cancel program play.
 - Pressing Button ① during programmed play makes it possible to search for a specific step number from among the programmed selections.
 - Program play returns to the first step in the programmed sequence when it reaches the end of the program.

Playing Disc by Remote Control

Erasing the program

It is possible to erase one or all selections of the program in the magazine being played.

To erase a single selection:

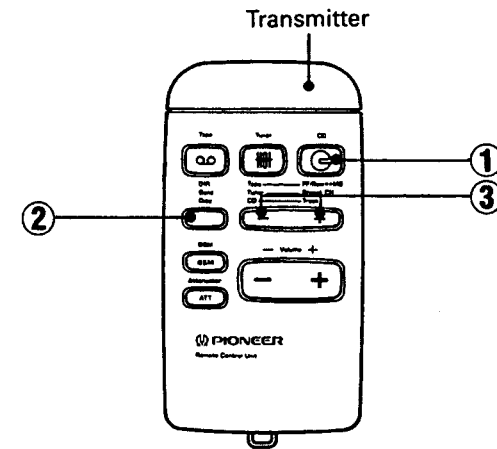
1. Press Button ① during programmed play, and search for the specific step you wish to erase.
 2. Press the Program Clear Button ⑥ for at least 2 seconds and the selection being played will be erased.
- After the particular track has been erased, the tracks in the next position move from down up one notch in the order from the previous position.

To erase the entire program:

While a disc is playing, hold down Button ⑥ for at least 2 seconds. All the programs in the magazine being played will be erased.



Indicates "P-CL."



① CD

Changes to CD playing.

② Disc Number Search

Used to specify the number a disc loaded in the magazine. Each press of this button sequentially advances the number.

③ Track Number Search

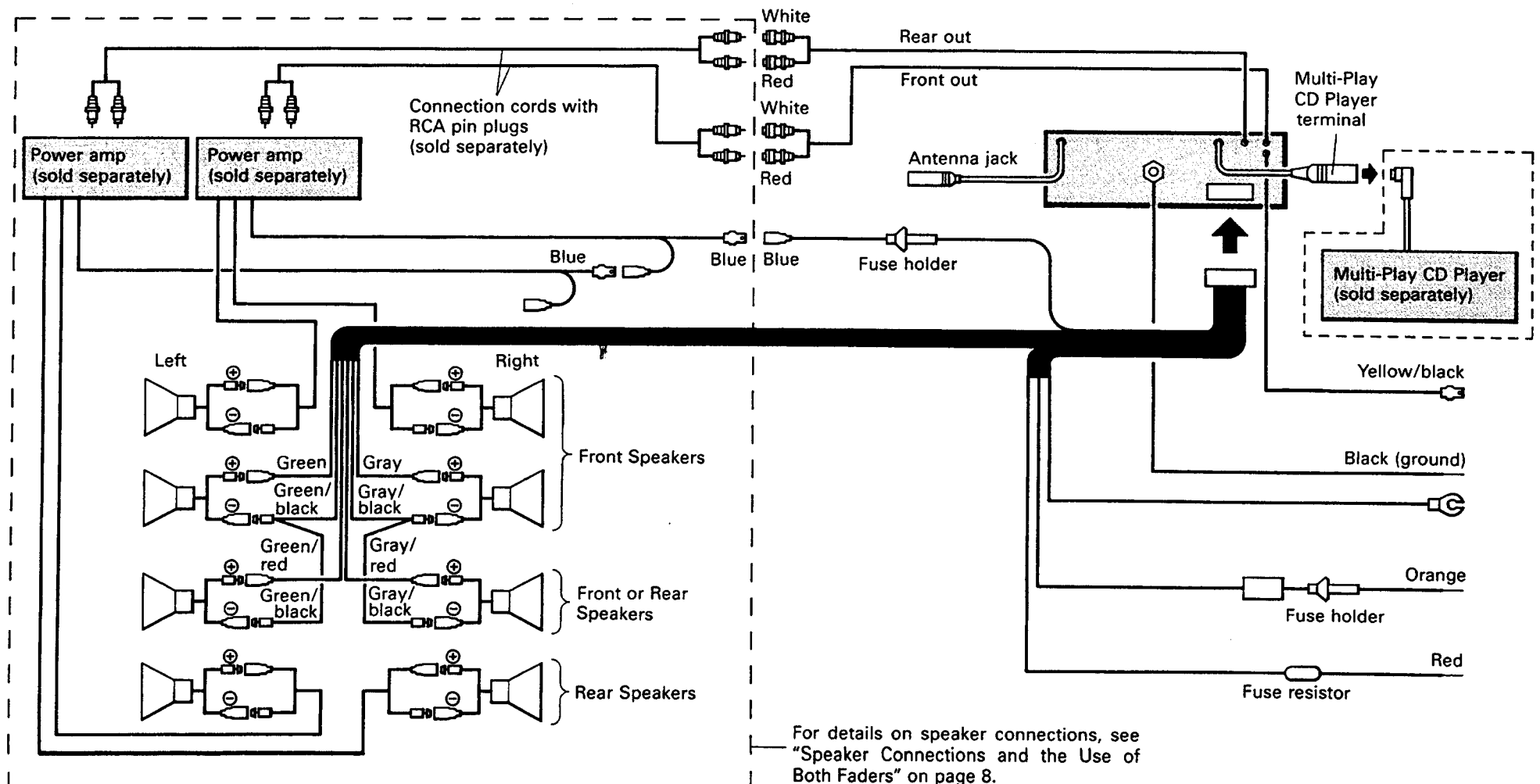
Press to search for a selection (track number) on the current disc. Press the (+) side to increase the track number on the display, and the (−) side to reduce the track number. Holding down either side of this button changes the track number at high speed.

Connections

Note:

- To avoid shorts in the electrical system, be sure to disconnect the battery \ominus cable before beginning installation.
- Replace fuses only with the types stipulated on the fuse holder.
- Be sure to properly connect the color coded leads. Failure to do so can cause malfunctions.
- Cover unused terminals with tape to prevent electrical shorts.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.
- If the rear or front out RCA pin jack on the unit are not being used, do not remove the cap attached to the end of the connector.
- Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speaker \ominus leads are common.
- Speakers connected to this unit must be high-power type possessing maximum input of at least 25 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.
- When the power amp is being linked with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, when linking this system with the auto-antenna, do not connect to power terminal for the antenna. Such connection can make overcurrent cause malfunctions.

Blue	If this unit is combined with a power amp, connect its blue lead to the blue lead (system control terminal) of the power amp. If combined with an auto-antenna, connect its blue lead to the relay control terminal of the auto-antenna. (MAX. 300 mA, 12 V DC)
Yellow/Black	Cellular Mute If you use a separately sold PIONEER cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.
Black (ground)	To vehicle (metal) body.
Orange	To terminal always supplied with power regardless of ignition switch position.
Red	To electric terminal controlled by ignition switch (12 V DC) ON/OFF.



Installation

Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 1)

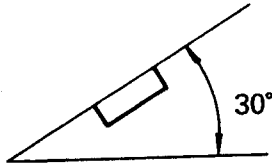
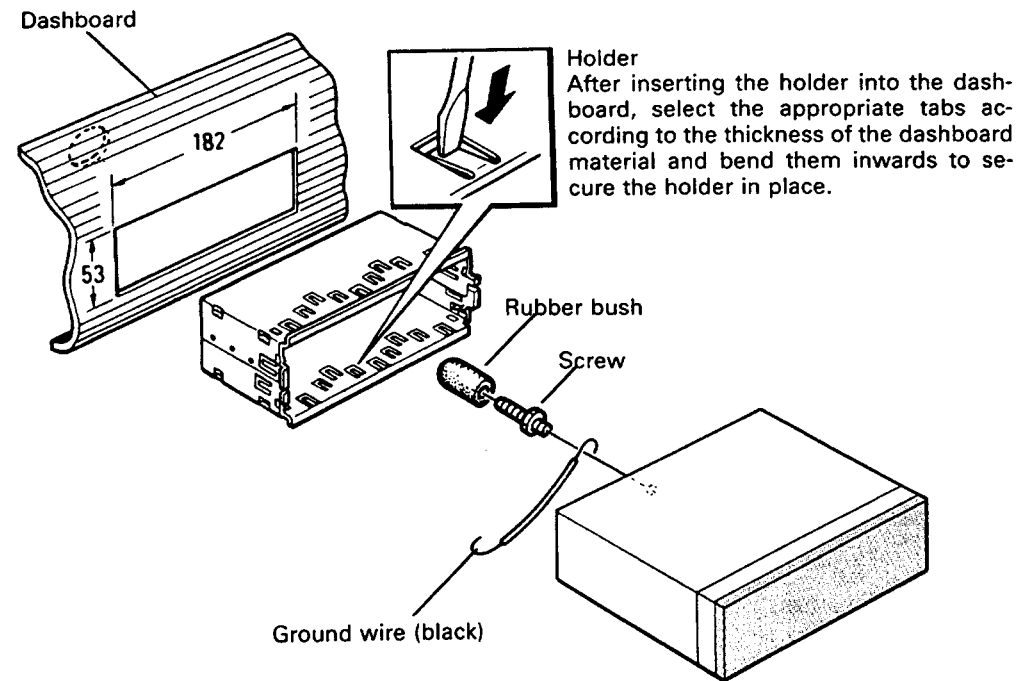
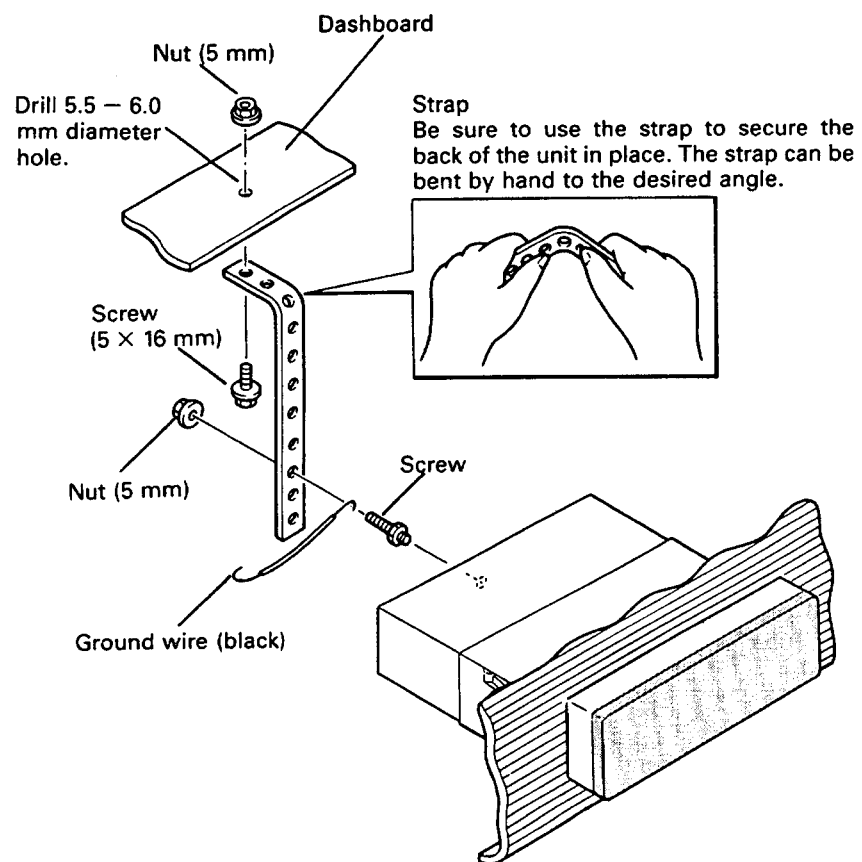


Fig. 1

Installation with the rubber bush



Installation without the rubber bush

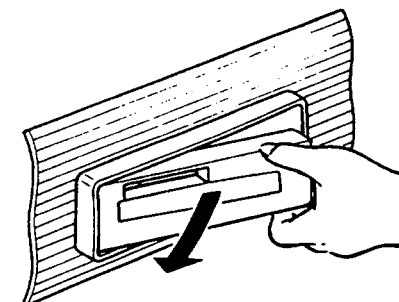
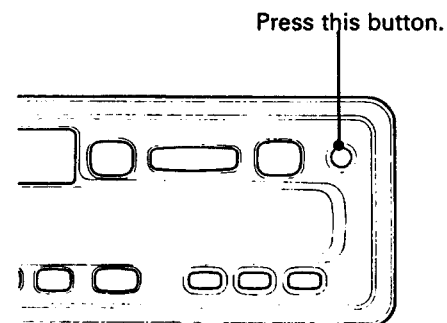


Removing the unit

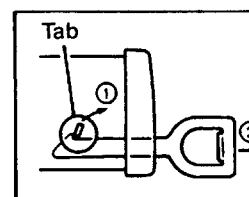
Remove the front panel. (See page 3.)

1

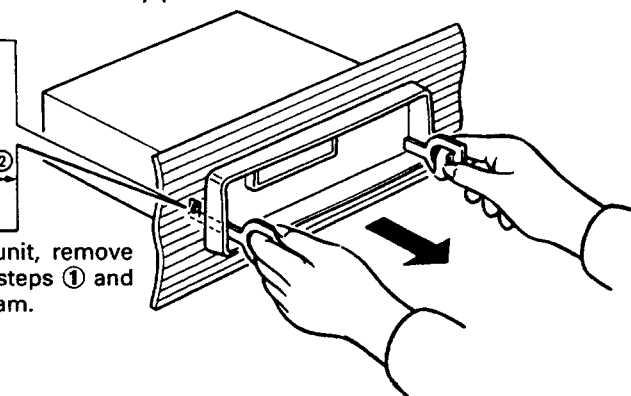
2



Insert till the tab of each lever catches onto the metal fixture of the unit. (Point the tab of the lever upward.) The unit can be released from the dashboard by pulling the levers.



After removing the unit, remove the levers, following steps ① and ② in the above diagram.



Care and Maintenance

- Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.
- If the playback head becomes dirty, sound quality will suffer. Periodically (once or twice a month) clean the head with a cotton swab soaked with alcohol. (Fig. 1)
- Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport. (Fig. 2)
- Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.
- Frequencies and times stored in memory can be lost when the vehicle's battery is replaced. If this should occur, reprogram the preset memory.

• After Service

In the event this unit does not function properly, contact your dealer or the nearest authorized PIONEER Service Center.

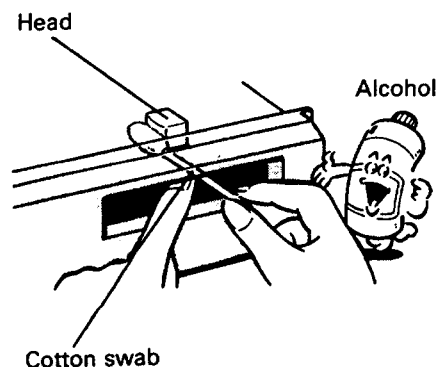


Fig. 1



Fig. 2

Specifications

General

Power source	14.4 V DC (10.8 — 15.6 V allowable)
Grounding system	Negative type
Max. current consumption	7.5 A
Dimensions (chassis)	178(W) × 50(H) × 150(D) mm [7(W) × 2(H) × 5-7/8(D) in.]
(nose)	188(W) × 58(H) × 18(D) mm [7-3/8(W) × 2-1/4(H) × 3/4(D) in.]
Weight	1.6 kg (3.5 lbs.)

Amplifier

Continuous power output is 10 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output	25 W × 2/15 W × 4 (EIAJ)
Load impedance	4 Ω (4 — 8 Ω allowable)
Preout output level/impedance	500 mV/1 kΩ
Tone controls (bass)	±10 dB (100 Hz)
(middle)	±10 dB (1 kHz)
(treble)	±10 dB (10 kHz)
Loudness contour	+10 dB (100 Hz), +7 dB (10 kHz) (volume: -30 dB)

Tape player

Tape	Compact cassette tape (C-30 — C-90)
Tape speed	4.8 cm/sec. (1-7/8 ips.)
Fast forward/rewind time	Approx. 100 sec. for C-60
Wow & flutter	0.08% (WRMS)
Frequency response	Metal: 30 — 19,000 Hz (±3 dB)
Stereo separation	45 dB
Signal-to-noise ratio	Metal: Dolby C NR IN: 71 dB (IHF-A network) Dolby B NR IN: 65 dB (IHF-A network) Dolby NR OUT: 57 dB (IHF-A network)

FM tuner

Frequency range	87.9 — 107.9 MHz
Usable sensitivity	11 dBf (1.0 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 — 15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity	70 dB (2ACA) (±400 kHz)
Three-signal intermodulation (desire signal level)	50 dBf (two undesire signal level: 110 dBf)

AM tuner

Frequency range	530 — 1,710 kHz
Usable sensitivity	18 μV (25 dB) (S/N: 20 dB)
Selectivity	50 dB (±10 kHz)

These specifications were determined and are presented in accordance with specification standards established by the Ad Hoc Committee of Car Stereo Manufacturers.

Note:

Specifications and the design are subject to possible modification without notice due to improvements.

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